

INITIAL REVIEW ENGINEERING REPORT  
PMN: 18-0379

Focus Ready Draft 11/1/2018  
ENGINEER: Al-Haddad \ MLS  
PV (kg/yr): Import Only  
SUBMITTER: Cardolite Corporation  
USE:

OTHER USES: No other uses were found for the PMN material.

MSDS: Yes

Label: No

Gen Eqpt: Engineering controls: Use local exhaust ventilation. Suitable respiratory equipment should be used in cases of insufficient ventilation. // Hand: Protective gloves. The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Impervious gloves. Chemical resistant protective gloves. Material of gloves: The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application. · Penetration time of glove material The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed. // Ete: Tightly sealed goggles. // Body: Protective working clothing.

Respirator: In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air. If exposure are expected, use of NIOSH-certified organic-vapor cartridge with a particulate pre-filter approved with assigned protection factor. Wear NIOSH-certified respirator with assigned protection factor (AFP) of at least 50.

Health Effects: May cause allergy or asthma symptoms or breathing difficulties if inhaled. Causes skin irritation. Causes serious eye irritation. May cause an allergic skin reaction.

TLV/PEL:

CRSS (10/18/2018):

Chemical Name: [REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]

S-H20: 1E-06 g/L @

VP: 1.0E-6 torr @

MW: [REDACTED] %<500 [REDACTED] %<1000

Physical State and Misc CRSS Info:

Neat: Solid (est.) Mfg: NK - Imported as [REDACTED] [REDACTED]

[REDACTED] Proc/Form: Solution, [REDACTED] [REDACTED]

[REDACTED] End Use: Destroyed. Submitted data: NAVG MW = [REDACTED] by GPC with [REDACTED] less than 500 and [REDACTED] less than 1000. The submitted MSDS is for [REDACTED]. An IR spectrum was included. Estimated data: high boiling point and negligible vapor pressure and water solubility (high MW polymer).  
[REDACTED]  
[REDACTED]

The structure as drawn has a molecular weight of [REDACTED], SMILES:  
[REDACTED]  
[REDACTED]  
[REDACTED].

Consumer Use: No

SAT (concerns) (10/19/2018):

Related Cases and Misc SAT Info:  
[REDACTED]

Analogues: [REDACTED]  
[REDACTED]

Migration to groundwater: Negligible

PBT rating: P3B1T1

Health: 1-2 Dermal, Drinking Water, Inhalation, Other

Eco: 1 No releases to water

OCCUPATIONAL EXPOSURE RATING: [REDACTED]

NOTES & KEY ASSUMPTIONS:

Occupational exposure and environmental releases were estimated using the 9/30/2013 version of ChemSTEER tool. Input to ChemSTEER tool includes information from: the PMN submission, physical / chemical properties, relevant past cases. SAT concerns are for dermal, drinking water, and inhalation exposures. PMN Is [REDACTED]. The following same-submitter, [REDACTED] past cases were referenced for consistency: [REDACTED]. PMN Is import only; therefore, a manufacturing operation was not assessed. /// PROC: [REDACTED] (generally consistent with all past cases). Dermal exposures were assessed [REDACTED] (consistent with all past cases). Inhalation exposures were not assessed because VP <0.001 torr and generation of respirable PMN not expected during formulation (consistent with all past cases). /// USE: [REDACTED] [REDACTED]). This IRER does not assess releases and inhalation exposures from [REDACTED]. This IRER assesses [REDACTED] (consistent with past cases).

POLLUTION PREVENTION CONSIDERATIONS:

P2 Claim: [REDACTED] [REDACTED]  
[REDACTED]  
[REDACTED]

EXPOSURE-BASED REVIEW: No

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Processing:

Number of Sites/ Location:

unknown site(s)

Days/yr:

Basis: Submission estimates

exposure days are equal to operating days. CS calculates RAD assumes kg PMN/site-day.

Process Description:

ENVIRONMENTAL RELEASES ESTIMATE SUMMARY

IRER Note: The daily releases listed for any source below may coincide with daily releases from the other sources to the same medium. Submission indicates proc/use sites have not been identified; however, they state that all customers will have to agree to terms of use that includes a signed agreement to adhere to the process as outlined in the submission. Therefore, RAD assesses using submitter information where available.

High End: [REDACTED] kg/site-day over [REDACTED] days/yr from [REDACTED] sites  
or [REDACTED] kg/site-yr from [REDACTED] sites or [REDACTED] kg/yr-all sites  
to: [REDACTED]  
from: [REDACTED]  
[REDACTED]

basis: EPA/OPPT [REDACTED] [REDACTED] The  
submission indicates [REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED] However, the submission does not estimate  
[REDACTED]. RAD assesses [REDACTED]  
The submission indicates [REDACTED]  
[REDACTED]

Output 2: [REDACTED] kg/site-day over [REDACTED] days/yr from [REDACTED] sites  
or [REDACTED] kg/site-yr from [REDACTED] sites or [REDACTED] kg/yr-all sites  
to: [REDACTED]  
from: [REDACTED]

basis: [REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]

RELEASE TOTAL  
[REDACTED] kg/yr - all sites

#### OCCUPATIONAL EXPOSURES ESTIMATE SUMMARY

Tot. # of workers exposed via assessed routes: [REDACTED]

Basis: [REDACTED]  
[REDACTED]  
[REDACTED] [REDACTED]  
[REDACTED]

Inhalation:

negligible, VP < 0.001 torr and generation of respirable PMN not expected.

Dermal:

Exposure to [REDACTED] [REDACTED] concentration

High End:

> Potential Dose Rate: 1.3E+3 mg/day over [REDACTED] days/yr

> Lifetime Average Daily Dose: 2.4E-1 mg/day over [REDACTED] days/yr

> Average Daily Dose: 4.6E-1 mg/day over [REDACTED] days/yr

> Acute Potential Dose: 1.7E+1 mg/day over [REDACTED] days/yr

Number of workers (all sites) with dermal exposure: [REDACTED]

Basis: [REDACTED]

[REDACTED] Per November 2016 RAD guidance, default parameters for this model were updated: body weight (BW) was updated from 70 to 80 kg and Averaging Time over a Lifetime (ATc) was updated from 70 to 78 years.

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PMN: 18-0379

Use:

Number of Sites/ Location:

unknown site(s)

Days/yr:

Basis: Submission estimates

Process Description:

ENVIRONMENTAL RELEASES ESTIMATE SUMMARY

IRER Note: The daily releases listed for any source below may coincide with daily releases from the other sources to the same medium. Submission indicates proc/use sites have not been identified; however, they state that all customers will have to agree to terms of use that includes a signed agreement to adhere to the process as outlined in the submission. Therefore, RAD assesses using submitter information where available. Submission indicates

However, submission indicates that PMN is

Output 2: [REDACTED] kg/site-day over [REDACTED] days/yr from [REDACTED] sites  
or [REDACTED] kg/site-yr from [REDACTED] sites or [REDACTED] kg/yr-all sites  
to: [REDACTED]

from: [REDACTED]  
[REDACTED]  
basis: User-Defined Loss Rate Model. [REDACTED]  
[REDACTED]  
[REDACTED]

Conservative: [REDACTED] kg/site-day over [REDACTED] days/yr from [REDACTED] sites  
or [REDACTED] kg/site-yr from [REDACTED] sites or [REDACTED] kg/yr-all sites  
to: [REDACTED])  
from: [REDACTED]

basis: EPA/OPPT [REDACTED]  
Submission does not estimate amount of PMN released from [REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]

RELEASE TOTAL  
[REDACTED] kg/yr - all sites

OCCUPATIONAL EXPOSURES ESTIMATE SUMMARY  
Tot. # of workers exposed via assessed routes: [REDACTED]  
Basis: Submission estimates up to [REDACTED] workers/site exposed. RAD assumes  
[REDACTED]  
[REDACTED]  
[REDACTED]



Inhalation:

Note the submitter indicates that the PMN is mixed [REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]

Dermal:

Exposure to [REDACTED] [REDACTED] concentration

High End:

- > Potential Dose Rate:  $6.7\text{E}+2$  mg/day over [REDACTED] days/yr
- > Lifetime Average Daily Dose:  $3.8\text{E}-1$  mg/day over [REDACTED] days/yr
- > Average Daily Dose:  $7.4\text{E}-1$  mg/day over [REDACTED] days/yr
- > Acute Potential Dose:  $8.4\text{E}+0$  mg/day over [REDACTED] days/yr

Number of workers (all sites) with dermal exposure: [REDACTED]

Basis: [REDACTED] EPA/OPPT [REDACTED]  
[REDACTED]. Per November 2016 RAD guidance, default parameters for this model were updated: body weight (BW) was updated from 70 to 80 kg and Averaging Time over a Lifetime (ATc) was updated from 70 to 78 years.